

What is claimed is:

1. A coating method, comprising:

placing a metal plate in a vacuum chamber of a chemical vapor deposition device,

5 charging a mixture of a gas containing at least osmium and a gas containing a hydrogen gas, and

generating plasma inside the vacuum chamber to provide osmium coating on the metal plate.

10 2. A coating method according to claim 1, wherein said gas containing osmium is a sublimation gas of an osmium oxide crystal, and said gas containing the hydrogen gas is a mixture of the hydrogen gas and at least one gas selected from the group consisting of an argon gas, a krypton gas and a xenon gas.

15 3. A coating method according to claim 1, wherein said metal plate is placed on a cathode facing an anode of the chemical vapor deposition device, a distance between the cathode and anode and a pressure of the vacuum chamber being set so that voltage  
20 for discharging plasma becomes minimum.

4. A coating method according to claim 1, wherein said metal plate is an aperture plate having a micro-hole.

25 5. An aperture plate having the osmium coating processed by a method according to claims 1.